

09082796-102201

additionally obtained can be easily transferred to the in-vehicle audio information reproducing apparatus 20 without connecting the hard disks of both apparatuses.

The generation and editing processes of the reproducing order data in the music piece data managing apparatus 10 have been described in Figs. 5 to 7 with regard to its individual embodiment. The whole flow of the forming and editing processes will be described with reference to a flowchart shown in Fig. 8.

A subroutine for forming the reproducing order data shown in Fig. 8 can be also activated, for example, when an input instruction to form the reproducing order data of the music piece data is issued from the keyboard 14. It can be also activated when the communication I/F unit 12 receives distribution of new music pieces from the server on the network or when the disc input unit 13 loads a new music piece disc.

In the flowchart of Fig. 8, first, the control part 11 of the music piece data managing apparatus 10 controls the hard disk to retrieve the management data (step S10) and controls the display 15 to display it (step S11).

As a result of monitoring the contents displayed on the display, if it is not particularly necessary to change the order of reproduction, the user takes a procedure of finishing the subroutine (step S12).

When the user wants to change the order of reproduction of the music pieces, the processing routine

advances to next step S13 and whether the music pieces are reproduced every artist or not is discriminated.

If the user wants to form the order of reproduction music pieces of every artist, the editing process shown at the middle stage in Fig. 6 is executed in step S15 and, thereafter, step S18 follows. If the user does not want to reproduce the music pieces every artist, whether the music pieces are reproduced every genre of the music piece or not is discriminated in step S14.

If the user wants to form the order of reproduction of every music piece field in step S14, the processes shown at the lower stage in Fig. 6 are executed and, thereafter, step S18 follows. If the user does not want the order of reproduction of every music piece genre, the user executes the editing process shown in Fig. 5 in step S17 and, thereafter, step S18 follows.

By executing one of the processes in steps S15 to S17 mentioned above, the data of the music piece names, their attributes, and the like included in the management data is rearranged every order of reproduction which the user wants and, further, the edition No. indicative of the order of reproduction is allocated to each music piece. That is, by the above processes, the reproducing order data to instruct the order of reproduction of the music piece data is formed.

In step S18, the user discriminates the presence or absence of the music piece which was newly added and obtained from the server or the like on the network. If the

music piece which has additionally been obtained exists, the user issues an instruction to add it to the previous reproducing order data (step S19) and the processing routine advances to step S20. A format of the reproducing order data in the above case is as shown in Fig. 7.

Assuming that the music piece data which was additionally obtained by the music piece data managing apparatus 10 is certainly transferred to the in-vehicle audio information reproducing apparatus 20, for example, the control part 11 of the music piece data managing apparatus 10 can also automatically execute the processes in steps S18 and S19 irrespective of the will of the user.

In step S20, the control part 11 generates the formed reproducing order data to the transfer media recording unit 18, so that the apparatus enters a state where the reproducing order data can be recorded into the data transfer media at anytime after that.

A reproduction processing subroutine of the music piece data in the in-vehicle audio information reproducing apparatus 20 will now be described with reference to a flowchart shown in Fig. 9.

It is also possible to construct the system in a manner such that when the memory 30 in which the reproducing order data has been recorded is loaded into the in-vehicle audio information reproducing apparatus 20, the above subroutine is automatically activated or after the memory 30 was loaded, it is activated when an instruction